```
> read `DMB.txt`
```

For a list of the Main procedures type: Help(); for help with a specific procedure type: Help (ProcedureName); for example Help(Feig);

For a list of the Continuous Dynamical Models procedures type: HelpC(); for help with a specific procedure type: Help(ProcedureName); for example Help(Feig); **(1)**

```
>
```

 # Result for M:=RandMat(3,30); T:=HWg(u,v,M); SSSgN(T,[u,v]); 40 times

$\frac{21}{40}$ *times only one type remained*

$\frac{19}{40}$ *times at least 2 types remained*

```
>
```

```
> SSSgN(AllenSIR(a, b, c, x, y), [x, y]);
```

$$[7. \times 10^{-10}, 0.9999999986] \quad \textbf{(2)}$$

```
> for i from 1 to 7 do
  b := [0.1, 0.15, 0.2, 0.25, 0.3, 0.35, 0.4][i];
  c := b;
  for j from 1 to 6 do
  a := [(b + c)/2, (b + c), 1.5*(b + c), 2*(b + c), 10*(b + c), 100*(b + c)][j];
  print("a=", a, "b=c=", b); print(SSSgN(AllenSIR(a, b, c, x, y), [x, y]));
  end do;
  end do;
```

$$b := 0.1$$

$$c := 0.1$$

"a=", 0.1000000000, "b=c=", 0.1

$$[7. \times 10^{-10}, 0.9999999986]$$

"a=", 0.2, "b=c=", 0.1

$$[0.0023458826, 0.9952845412]$$

"a=", 0.30, "b=c=", 0.1

$$[0.1586702173, 0.6826595654]$$

"a=", 0.4, "b=c=", 0.1

$$[0.2379155707, 0.5241688586]$$

"a=", 2.0, "b=c=", 0.1

$[0.4257286974, 0.1485426054]$

"a=", 20.0, "b=c=", 0.1

$[0.4545407977, 0.09091840559]$

$b := 0.15$

$c := 0.15$

"a=", 0.1500000000, "b=c=", 0.15

$[4. \times 10^{-10}, 0.9999999991]$

"a=", 0.30, "b=c=", 0.15

$[0.0015293689, 0.9969310399]$

"a=", 0.450, "b=c=", 0.15

$[0.1549131987, 0.6901736030]$

"a=", 0.60, "b=c=", 0.15

$[0.2321821549, 0.5356356903]$

"a=", 3.00, "b=c=", 0.15

$[0.4128067433, 0.1743865134]$

"a=", 30.00, "b=c=", 0.15

$[0.4347824861, 0.1304350281]$

$b := 0.2$

$c := 0.2$

"a=", 0.2000000000, "b=c=", 0.2

$[3. \times 10^{-10}, 0.9999999993]$

"a=", 0.4, "b=c=", 0.2

$[0.0011217441, 0.9977509080]$

"a=", 0.60, "b=c=", 0.2

$[0.1513070546, 0.6973858908]$

"a=", 0.8, "b=c=", 0.2

$[0.2266503964, 0.5466992072]$

"a=", 4.0, "b=c=", 0.2

$[0.3997932150, 0.2004135702]$

"a=", 40.0, "b=c=", 0.2

$[0.4166666628, 0.1666666747]$

$b := 0.25$

$c := 0.25$

"a=", 0.2500000000, "b=c=", 0.25

$[0., 0.9999999998]$

"a=", 0.50, "b=c=", 0.25

$[0.0008777887, 0.9982409222]$

"a=", 0.750, "b=c=", 0.25

$[0.1478446271, 0.7043107460]$

"a=", 1.00, "b=c=", 0.25

$[0.2213159112, 0.5573681774]$

"a=", 5.00, "b=c=", 0.25

$[0.3869316911, 0.2261366179]$

"a=", 50.00, "b=c=", 0.25

$[0.3999999999, 0.2000000003]$

$b := 0.3$

$c := 0.3$

"a=", 0.3000000000, "b=c=", 0.3

$[2. \times 10^{-10}, 0.9999999996]$

"a=", 0.6, "b=c=", 0.3

$[0.0007156888, 0.9985662474]$

"a=", 0.90, "b=c=", 0.3

$[0.1445190174, 0.7109619652]$

"a=", 1.2, "b=c=", 0.3

$[0.2161735994, 0.5676528015]$

"a=", 6.0, "b=c=", 0.3

$[0.3743947189, 0.2512105622]$

"a=", 60.0, "b=c=", 0.3

$[0.3846153847, 0.2307692308]$

$b := 0.35$

$c := 0.35$

"a=", 0.3500000000, "b=c=", 0.35

$[2. \times 10^{-10}, 0.9999999996]$

"a=", 0.70, "b=c=", 0.35

$[0.0006012272, 0.9987958353]$

"a=", 1.050, "b=c=", 0.35

$[0.1413236063, 0.7173527873]$

"a=", 1.40, "b=c=", 0.35

$$[0.2112178323, 0.5775643353]$$

"a=", 7.00, "b=c=", 0.35

$$[0.3622938556, 0.2754122889]$$

"a=", 70.00, "b=c=", 0.35

$$[0.3703703703, 0.2592592593]$$

$$b := 0.4$$

$$c := 0.4$$

"a=", 0.4000000000, "b=c=", 0.4

Error, (in sqrfree) argument must be a polynomial or a rational function in lam |DMB.txt:710|

(3)

>